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(71) Applicant (for all designated States except US): ENERGY & ENVIRONMENTAL RESEARCH CENTER FOUNDATION, INC. [US/US]; 15 North 3rd St., PO Box 9018, Grand Forks, North Dakota 58202-9018 (US).

(72) Inventors; and

(75) **Inventors/Applicants (for US only): OLSON, Edwin**
[US/US]; 223 Circle Hills Drive, Grand Forks, North

Dakota 58201 (US). **HOLMES, Michael** [US/US]; 614 6th Ave NE, Thompson, North Dakota 58278 (US). **PAVLISH, John** [US/US]; 42204 210th St SW, East Grand Forks, Minnesota 56721 (US).

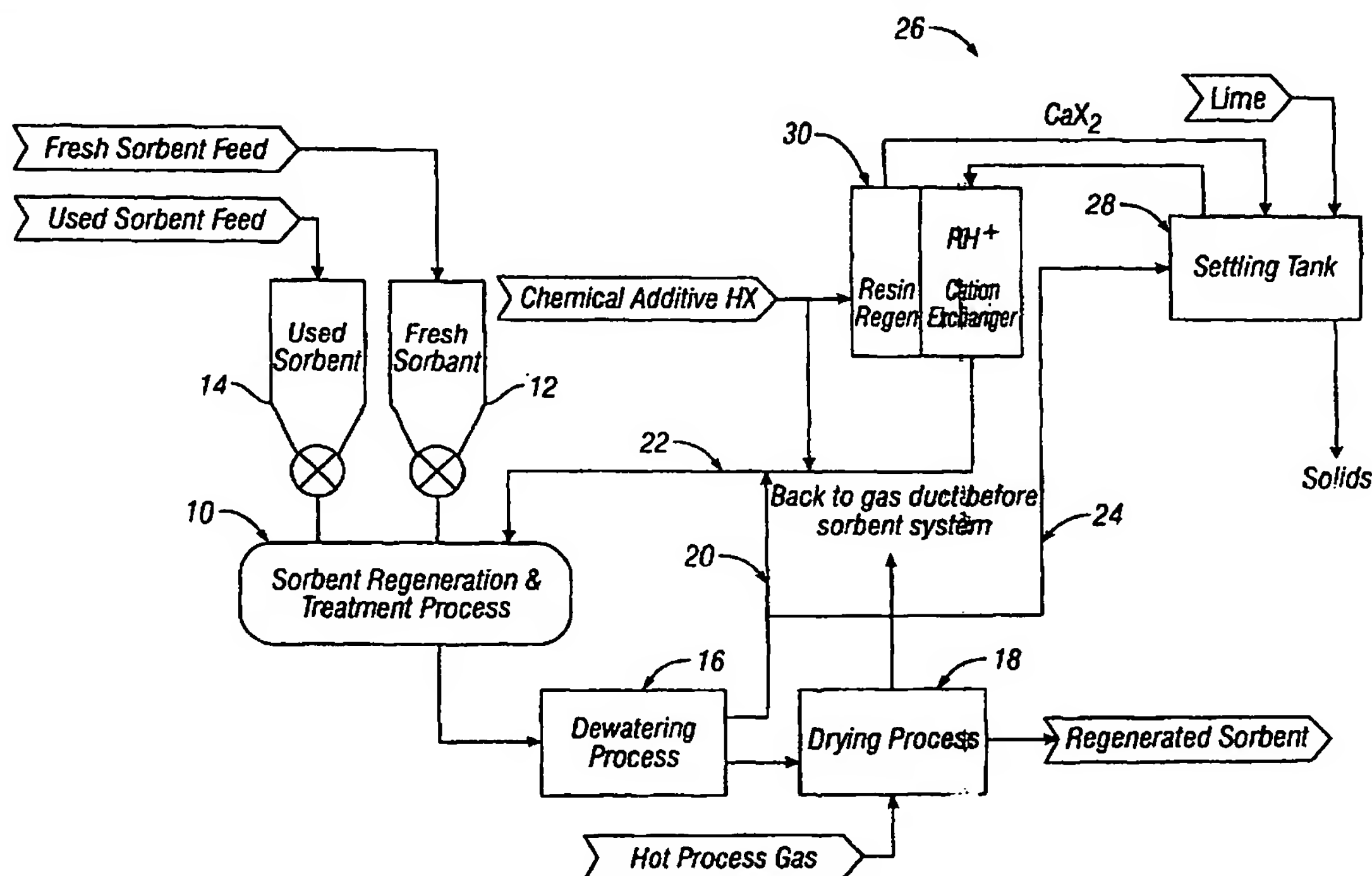
(74) Agent: JOHNSON, Bruce, A.; Johnson & Associates, PO Box 90698, Austin, Texas 78709-0698 (US).

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[Continued on next page]

(54) Title: PROCESS FOR REGENERATING A SPENT SORBENT



(57) Abstract: A method and apparatus is provided for regenerating a sorbent (12,14) that has been poisoned by components derived from flue gas. The sorbent is treated with an agent (10) to remove poisoning components and introduce a promoting agent into the sorbent (22). The method and apparatus can also be used to enhance the effectiveness of a new sorbent (18).

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GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/12828

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B01J 20/34, 38/48, 38/60, 38/62

US CL : 502/22, 27, 28

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 502/22, 27, 28

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P — Y, P	US 6,579,507 B2 (PAHLMAN et al) 17 June 2003 (17.06.2003), column 10, lines 39-67; column 40, lines 32-67.	1-3,11-14,17-22,26-32,36-38,42-48,55-58, and 62-69 ----- 4-10,15,16,23-25,33-35,39-41,49-51, and 59-61
X	US 6,475,451 B1 (LEPPIN et al) 05 November 2002 (05.11.2002), see abstract.	43-48
A	US 5,827,352 (ALTMAN et al) 27 October 1998 (27.10.1998), see abstract and entire patent.	1-69
Y	US 5,480,619 (JOHNSON et al) 02 January 1996 (02.01.1996), see abstract, col . 4, lines 30-35.	7-10, 15,16,23-25,33-35,39-41,49-51 and 59-61
Y	US 4,196,173 (deJong et al.) 01 April 1980 (01.04.1980), see abstract.	4-6

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Further documents are listed in the continuation of Box C.

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See patent family annex.

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document member of the same patent family

Date of the actual completion of the international search

22 September 2004 (22.09.2004)

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Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner of Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Jonas N. Strickland

Telephone No. 571-272-1700

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for

INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:

EAST, WEST search terms: sorbent, regeneration, mercury, acid, water, solvent, solution, liquid, reactivation